

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference WO-RO2003-11	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/JP2003/012184	International filing date (day/month/year) 24 September 2003 (24.09.2003)	Priority date (day/month/year) 25 September 2002 (25.09.2002)
International Patent Classification (IPC) or national classification and IPC G02F 1/1347		
Applicant ROHM CO., LTD.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 8 sheets, including this cover sheet.

This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of _____ sheets.

3. This report contains indications relating to the following items:

- I Basis of the report
- II Priority
- III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV Lack of unity of invention
- V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI Certain documents cited
- VII Certain defects in the international application
- VIII Certain observations on the international application

Date of submission of the demand 17 November 2003 (17.11.2003)	Date of completion of this report 03 March 2004 (03.03.2004)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP2003/012184

I. Basis of the report

1. With regard to the elements of the international application:*

 the international application as originally filed the description:pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____ the claims:pages _____, as originally filed
pages _____, as amended (together with any statement under Article 19
pages _____, filed with the demand
pages _____, filed with the letter of _____ the drawings:pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____ the sequence listing part of the description:pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

 the language of a translation furnished for the purposes of international search (under Rule 23.1(b)). the language of publication of the international application (under Rule 48.3(b)). the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

 contained in the international application in written form. filed together with the international application in computer readable form. furnished subsequently to this Authority in written form. furnished subsequently to this Authority in computer readable form. The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished. The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.4. The amendments have resulted in the cancellation of: the description, pages _____ the claims, Nos. _____ the drawings, sheets/fig. _____5. This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/JP 03/12184

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	YES
	Claims	1 - 7 NO
Inventive step (IS)	Claims	YES
	Claims	1 - 7 NO
Industrial applicability (IA)	Claims	1 - 7 YES
	Claims	NO

2. Citations and explanations

Document 1: JP 2000-221288 A
 Document 2: JP 2002-40409 A
 Document 3: JP 2001-296546 A
 Document 4: WO 99/04315 A
 Document 5: WO 00/36582 A
 Document 6: JP 2000-298273 A

Document 1 (fig. 9 and paragraphs 0071 to 0082) discloses the invention of a "composite display device comprising a first display element (the second liquid crystal display panel) and a second display element (the first liquid crystal display panel) that is provided so as to overlap with the first display element, wherein the abovementioned first display element (the second liquid crystal display panel) comprises a liquid crystal panel, which has a liquid crystal layer (the TN liquid crystal) that is held between a first and a second transparent substrate (26, 21), and a reflective polarizing plate (the reflection-type polarizing plate (28) that functions as a semi-transparent reflective plate), which is disposed on the abovementioned first transparent substrate (26) side of the abovementioned liquid crystal panel and which transmits light that oscillates in a specific direction while reflecting light that oscillates in a direction

orthogonal to the specific direction; and the abovementioned reflective polarizing plate (28) is directly connected to the aforementioned liquid crystal panel (the second liquid crystal display panel) via an adhesive layer (the adhesive material comprising an acrylic resin) with a uniform index of refraction." Therefore, the invention that is set forth in claim 1 lacks novelty and does not involve an inventive step.

Document 2 discloses the invention of a "composite display device comprising a first display element (13) and a second display element (12) that is provided so as to overlap with the first display element, wherein the abovementioned first display element (13) comprises a liquid crystal panel, which has a liquid crystal layer (the TN liquid crystal) that is held between a first and a second transparent substrate (1, 4), (a diffusion plate (14) that can be provided as necessary (refer to paragraph 0091)), and a reflective polarizing plate (the second polarized light separation unit (15)), which is disposed on the abovementioned first transparent substrate (1) side of the abovementioned liquid crystal panel (13) and which transmits light that oscillates in a specific direction while reflecting light that oscillates in a direction orthogonal to the specific direction."

In addition, the technical feature of directly connecting the reflective polarizing plate to the aforementioned liquid crystal panel via an adhesive layer with a uniform index of refraction merely involves the addition of a means that is well known, as disclosed in document 1; therefore, the invention that is set forth in claim 1 lacks novelty and does not involve an inventive step.

The feature of configuring a reflective polarizing plate from a bifringent multi-layered conductive film is well known (refer to document 1, paragraph 0078, and

document 2, paragraphs 0094-0095); therefore, the invention that is set forth in claim 2 lacks novelty and does not involve an inventive step.

Document 2 (fig. 1 and fig. 2) illustrates that in the invention disclosed therein, the "second display element (12) comprises a liquid crystal panel (12) with a liquid crystal layer (8) that is held between third and fourth transparent substrates (1, 4), the aforementioned third transparent substrate (1) of the aforementioned second display element is provided to the aforementioned second transparent substrate (4) side of the aforementioned first display element (13), and the light polarizing plate (11) is provided to the aforementioned fourth transparent substrate (4) side thereof." Therefore, the invention that is set forth in claims 3-4 lacks novelty and does not involve an inventive step.

Document 5 (fig. 9) discloses segments (411) with a dot-matrix format and segments (421) with a seven-segment format; therefore, the invention that is set forth in claim 5 lacks novelty and does not involve an inventive step.

Document 3 (fig. 1A or 1B) illustrates the invention of a "composite display device comprising a first display element (24) and a second display element (22) that is provided so as to overlap with said first display element, wherein the aforementioned second display element (22) is formed from a cold-cathode tube, a light emitting diode or a liquid crystal panel with a liquid crystal layer that is held between two transparent substrates (refer to paragraph 0046); the aforementioned first display element (24) comprises a liquid crystal panel (24), which has a liquid crystal layer that is held between a first transparent substrate (32 or 35) and a second transparent substrate (30), and a reflective polarizing plate (44), which is disposed on the aforementioned first transparent

substrate (32 or 35) side of the aforementioned liquid crystal panel and which transmits light that oscillates in a specific direction while reflecting light that oscillates in a direction orthogonal to the specific direction; a light polarizing plate (40) is provided to the aforementioned second transparent substrate (30) side thereof; and the aforementioned first display element (24) is provided so as to be superposed over the display surface of the aforementioned second display element (22)." In addition, the technical feature of directly connecting the reflective polarizing plate to the aforementioned liquid crystal panel via an adhesive layer with a uniform index of refraction merely involves the addition of a means that is well known, as disclosed in document 1; therefore, the invention that is set forth in claims 1-7 lacks novelty and does not involve an inventive step.

Document 4 discloses the invention of a "composite display device comprising a first display element (100) and a second display element (200) that is provided so as to overlap with said first display element, wherein the aforementioned second display element is formed from a cold-cathode tube, a light emitting diode, or a liquid crystal panel with a liquid crystal layer that is held between two transparent substrates; the aforementioned first display element (100) comprises a liquid crystal panel, which has a liquid crystal layer that is held between a first and a second transparent substrate, and a reflective polarizing plate (22), which is disposed on the aforementioned first transparent substrate side of the aforementioned liquid crystal panel and which transmits light that oscillates in a specific direction while reflecting light that oscillates in a direction orthogonal to the specific direction; a light polarizing plate (21) is provided to the aforementioned second transparent

substrate side thereof; and the aforementioned first display element (100) is provided so as to be superposed over the display surface of the aforementioned second display element (200)." In addition, the technical feature of directly connecting the reflective polarizing plate to the aforementioned liquid crystal panel via an adhesive layer with a uniform index of refraction merely involves the addition of a means that is well known, as disclosed in document 1; therefore, the invention that is set forth in claims 1-7 lacks novelty and does not involve an inventive step.

Document 5 (fig. 20) illustrates the invention of a "composite display device comprising a first display element (501) and a second display element (502) that is provided so as to overlap with said first display element, wherein the aforementioned second display element (502) is formed from a cold-cathode tube, a light emitting diode, or a liquid crystal panel with a liquid crystal layer that is held between two transparent substrates; the aforementioned first display element (501) comprises a liquid crystal panel, which has a liquid crystal layer that is held between a first and a second transparent substrate, and a reflective polarizing plate (501g), which is disposed on the aforementioned first transparent substrate side of the aforementioned liquid crystal panel and which transmits light that oscillates in a specific direction while reflecting light that oscillates in a direction orthogonal to the specific direction; a light polarizing plate (501c) is provided to the aforementioned second transparent substrate side thereof; and the aforementioned first display element (501) is provided so as to be superposed over the display surface of the aforementioned second display element (502)." In addition, the technical feature of directly connecting the reflective polarizing plate to the aforementioned liquid

crystal panel via an adhesive layer with a uniform index of refraction merely involves the addition of a means that is well known, as disclosed in document 1; therefore, the invention that is set forth in claims 1-7 lacks novelty and does not involve an inventive step.

Document 6 (fig. 1) illustrates the invention of a "composite display device comprising a first display element (11) and a second display element (14) that is provided so as to overlap with said first display element, wherein the aforementioned second display element (14) is formed from a cold-cathode tube, a light emitting diode, or a liquid crystal panel with a liquid crystal layer that is held between two transparent substrates; the aforementioned first display element (11) comprises a liquid crystal panel, which has a liquid crystal layer that is held between a first and a second transparent substrate, and a reflective polarizing plate (13), which is disposed on the aforementioned first transparent substrate side of the aforementioned liquid crystal panel and which transmits light that oscillates in a specific direction while reflecting light that oscillates in a direction orthogonal to the specific direction; a light polarizing plate (12) is provided to the aforementioned second transparent substrate side; and the aforementioned first display element (11) is provided so as to be superposed over the display surface of the aforementioned second display element (14)." In addition, the technical feature of directly connecting reflective polarizing plate to the aforementioned liquid crystal panel via an adhesive layer with a uniform index of refraction merely involves the addition of a means that is well known, as disclosed in document 1; therefore, the invention that is set forth in claims 1-7 lacks novelty and does not involve an inventive step.